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Numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described herein.

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IN THE CLAIMS

--9. (New) An intermittent drive control apparatus of a motor, comprising:

a motor configured to drive the motor intermittently by selectively supplying a current into the motor a forward rotation direction and a current in a reverse rotation direction;

a rotation detector which generates a rotation detection signal at a frequency proportionate to rotation of said motor;

a rotational speed detector to obtain a rotational speed of said motor based on said rotation detection signal; and

a driving controller configured to control the motor driver to supply current of a reverse rotation direction to the motor for a predetermined period of time, thereby braking and stopping the rotation of the motor.

wherein said driving controller includes a braking time interval calculator configured to calculate a time interval of said braking,

said braking time interval calculator measures a period of said rotation detection signal to calculate a speed deceleration rate of said motor, and calculates a braking time between start and stop of the rotation of the motor based on a rotational speed of the motor at the time of the braking start and the calculated speed deceleration rate, and

said driving controller controls the motor driver so that current of a reverse rotation direction may be supplied to the motor during the calculated time.

10. (New) An intermittent drive control apparatus of a motor according to claim 9, wherein

the braking time interval calculator calculates the speed deceleration rate based on the period of the plurality of rotation detection signals, and

until the plurality of rotation detection signals are obtained, the motor driver is controlled based on a braking time interval calculated last time.

11. (New) An intermittent drive control apparatus of a motor according to claim 9, wherein

the braking time interval calculator measures a first period based on a first rotation detection signal included in the rotation detection signals and a second rotation detection signal arriving subsequently to the first rotation detection signal, measures a second period based on the second rotation detection signal and a third rotation detection signal arriving subsequently to the second rotation detection signal, and calculates the speed deceleration rate based on the first period and the second period.

12. (New) An intermittent drive control apparatus of a motor according to claim 9, wherein

the braking time interval calculator obtains the speed deceleration rate by calculating an average speed of each pair among a plurality of pairs of the rotation detection signals.

13. (New) An intermittent drive control apparatus of a motor according to claim 9, wherein

the braking time interval calculator uses a rotational speed of the motor at time of braking start as one of average speeds used for calculation of the speed deceleration rate.